

NOAA's National Weather Service

Severe Weather Strategy Workshop for Industry

*National Weather Service Quad Cities
January 25, 2005*

The background features a stylized blue sky and ocean. In the top left corner, a white seagull is shown in flight. The ocean is represented by dark blue waves. The text "Why are we here?" is centered in a yellow, serif font with a black outline.

Why are we here?









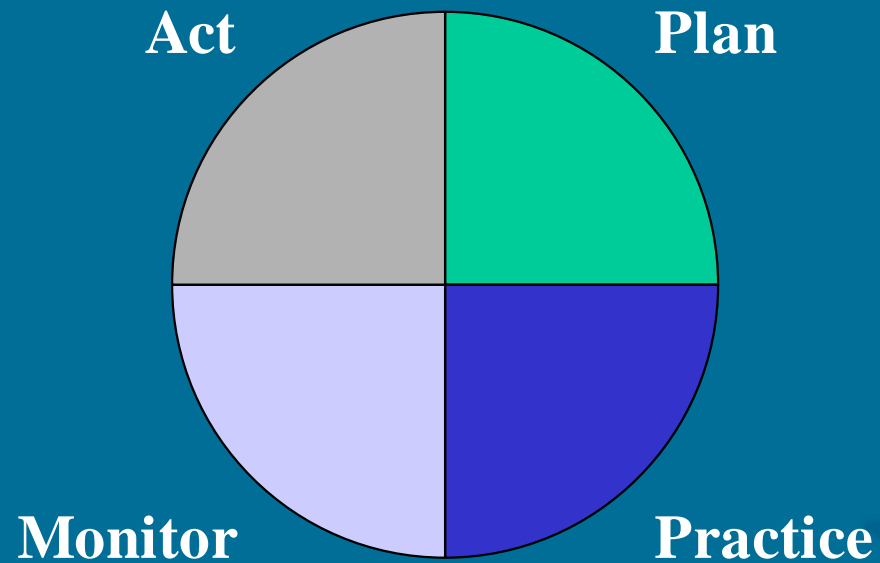




Why are we here?

Nobody wants to notify next of kin.

What makes an effective Severe Weather Plan?



Plan

- *Know the threats*
- *Construct an effective plan for those threats*

Plan: Threat Assessment

Tornado

Extreme wind

Flood

Flash Flood

Hail

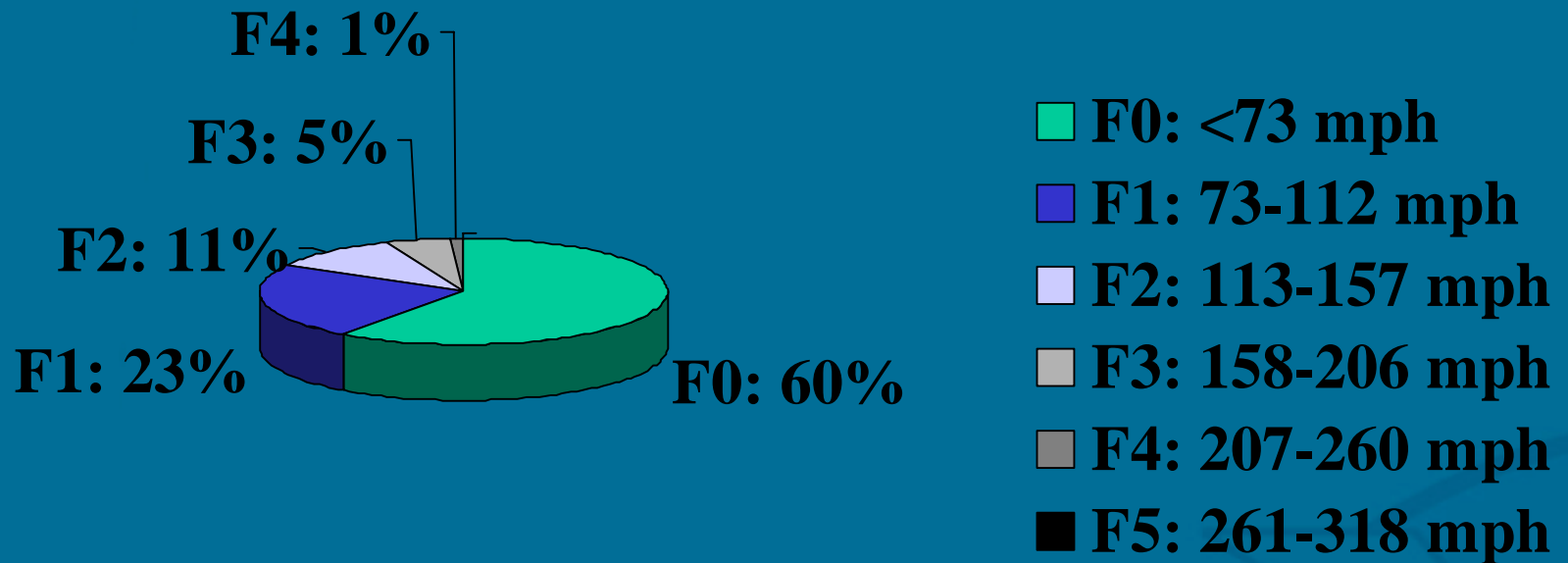
Blizzard

Extreme Heat/Cold

Focus on Tornado/High Wind

- *Climatology of Tornadoes/High wind*
- *Strength*
- *Season*
- *Diurnal peaks*

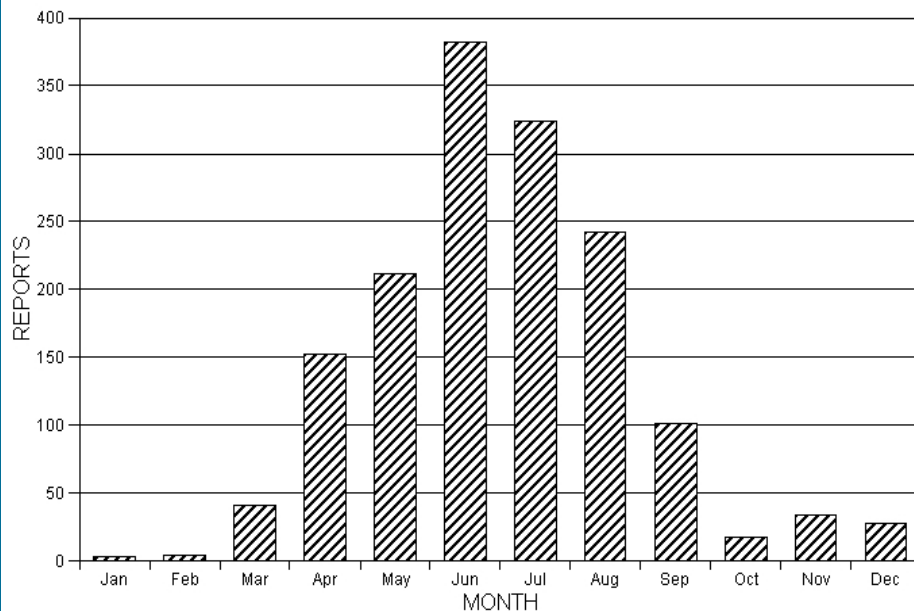
Tornados: Strength



Tornados and Extreme Wind: Season

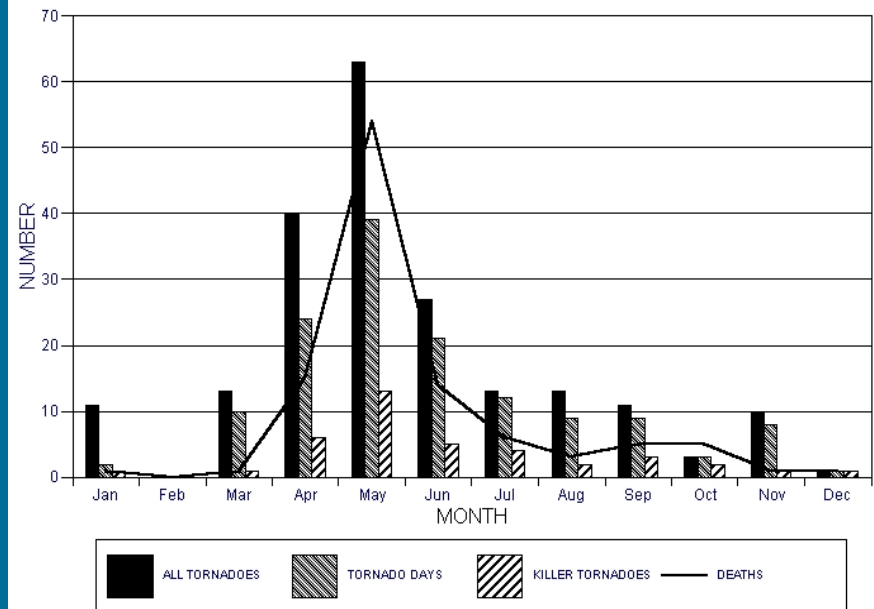
DAMAGING WIND REPORTS BY MONTH

1955-1993 / WFO DVN MODERNIZED CWA



SIGNIFICANT TORNADOES BY MONTH

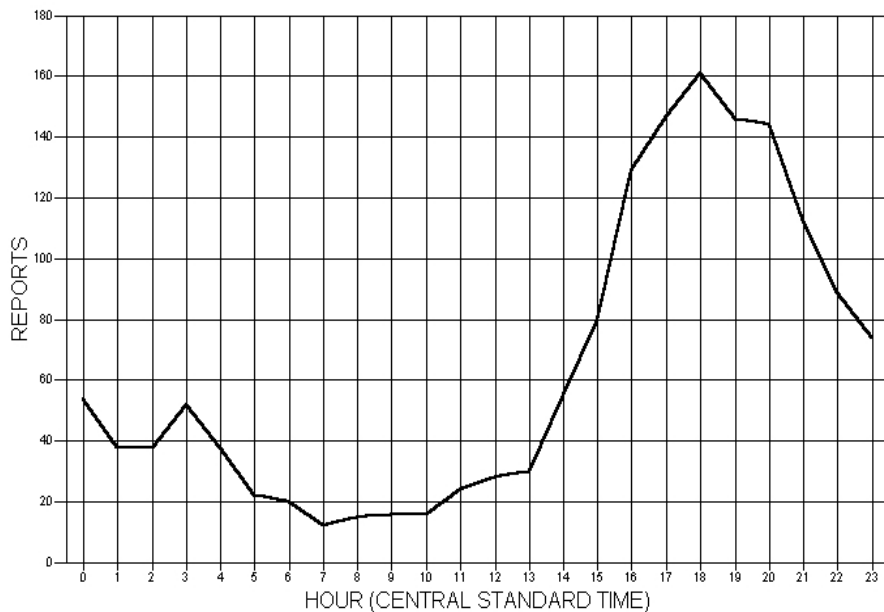
1870-1991 / WFO DVN MODERNIZED CWA



Tornadoes and Extreme Wind: Time of Day

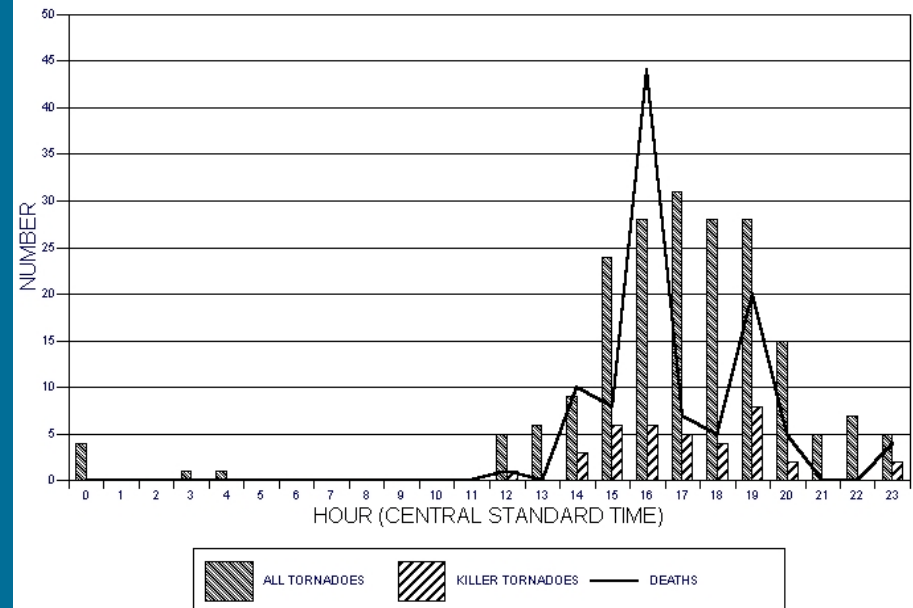
DAMAGING WIND REPORTS BY HOUR (CST)

1955-1993 / WFO DVN MODERNIZED CWA

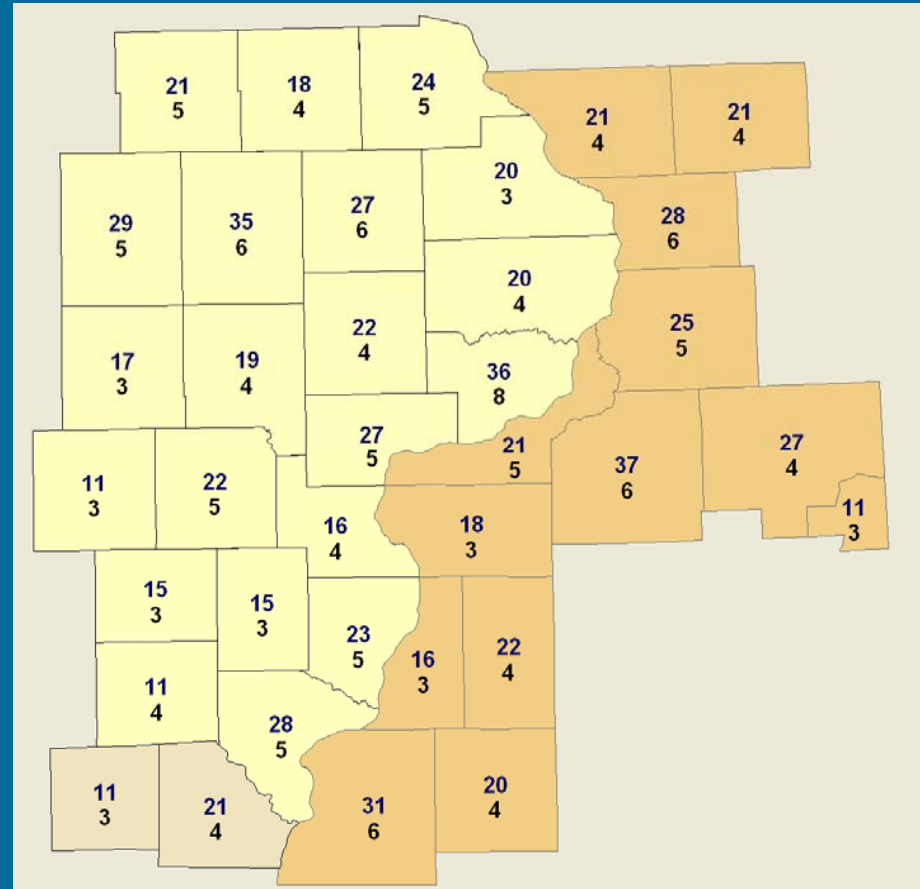


SIGNIFICANT TORNADOES BY HOUR (CST)

1870-1991 / WFO DVN MODERNIZED CWA



Average Number of Tornado Events per Year (Doppler Radar Era) Average Number of Extreme Wind Events per Year (Doppler Radar Era)



An Effective Severe Weather Plan answers these questions:

- *Who will monitor the weather?*
- *When will plan be enacted?*
- *How will action be initiated?*
- *Where will people go?*
- *How will you communicate an “all-clear”?*
- *When will you practice?*

Who will monitor the weather?

- *“Designated Weather Watcher”*
- *Available information: before, during, after*
- *Your eyes: the spotter network*
- *Two-way communication*

When will plan be enacted?

- ***Establish criteria***
 - *Warning or sighted*
- ***Consider how much time you need for people to reach shelter...***

Background: Available Weather Information

- *Outlook: early each morning*
- *Watch: 1 to 6 hours ahead*
- *Warning*

Severe thunderstorm: average 20 minutes before

Tornado Warning: average 12 minutes before

- *Web site: weather.gov*



Quad Cities

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"City, St" or Zip Code

City, St

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- [Wanted: Volunteer Observers](#) in Columbus Junction, Maquoketa, and Fairbank, Iowa
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Quick glimpse at the weather

Quad Cities area

Click on the map below for the latest forecast.



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Last map update: Wed, Sep 15th 2004 at 11:08:12 pm CDT

... AREA WEATHER ROUNDUP ...

Click the scrolling text for an expanded view.

If your browser does not support Java click [here](#) for the [Area Weather Roundup](#)

Background: What can I expect from warnings?

- *Climatology*
- *Realistic expectations*
- *High wind wording*
- *Geography*

Green: Flash Flood Warnings

How will action be initiated?

- *Means of communication*
- *Backup plan*

Where will people go?

- ***Appropriate shelter***
- ***Enough space***
 - *Visitors (esp. large groups)*
 - *People leading the group must have and know the plan*
- ***Enough time to get there***

Background: Tornado Shelters

- *Interior of building*
- *Without windows*
- *Roof tied to walls – walls tied to floor*
- *Avoid large-span (>30 ft) rooms*
- *An engineered Saferoom is best*
- *FEMA Saferoom guidelines*
- *New construction or retrofit*
- *Can be a working space (conference room, break room, storeroom, bathrooms, etc)*







keep safe

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FOR TORNADO SHELTERS





Safe Rooms under construction in the Country Club Courts subdivision by The Core Inc., Wichita, KS. Photo by FEMA.

How will you communicate an “all-clear”?

- *Drills*
- *Shift to response/rescue mode*

Practice

- ***Training meetings: Make sure everyone knows the plan***
- ***In house drills: Practice the plan***
 - *Evaluate time needed*
 - *Evaluate suitability of shelters*
- ***Severe Weather Awareness Week – tornado drill day for each state***

Act

- ***Acting vs reacting***
- ***Be proactive***
 - *Outlook, watch, other warnings*

Consider Van Wert, Ohio.

On Veteran's Day In 2002, an F4 tornado struck Van Wert, Ohio. 50 people were watching "Santa Clause 2". The movie theater was directly struck. No fatalities. No serious injuries. Why? The theater owner had heard the warning on Weather Radio and moved all the patrons into their restroom (shelter area).



Photo courtesy Ben Waltz



Photo courtesy of Paul Van Dyke



Photo courtesy of Paul Van Dyke



Photo courtesy of Paul Van Dyke

Summary

Based on Parsons, VanWert, Oklahoma City, Utica, and numerous other tornado successes and failures – What works:

- *Engineered Tornado shelters.*
- *The Designated Weather Watcher.*
- *Being proactive.*
- *Practicing.*

Plan. Practice. Monitor. Act.